جامعـة الأميـرة
نـورة بنت عبدالرحمن
كلية علوم الحاسب والمعلومات

Work Distribution Sheet

Phase Number: **phase 1 part 1**

Group Number: **Group 2**

Project Title: **Furniture Shopping Application**

Section: **81S**

Date:

Student Name	Student ID	Task Accomplished by student	Mark (by instructor)
1. Monerah Almobarak	442002988	Analysis	
2. Nada Alotaibi	442003374	Analysis	
3. Sarah Aljuhani	442005104	The project purpose	
4. Sarah Altaweel	442000786	Analysis	
5. Alaa Alshuaibi	442005420	Project problem or idea	

The project problem or idea

In-person furniture stores are not always convenient. Because from the customer's point of view, going to a furniture store that is often far away, only to be disappointed by not finding the desired item, is a waste of time and money. Another reason for the inconvenience of in-person stores is the inflexibility of comparing the prices of items in two or more stores. In addition, if looked at from the business's and owner's point of view, it is more manageable to have and maintain an online application than a physical store. It is easier to include all the colours and types of furniture that are usually hard to showcase in the physical store. Therefore, adding all these obstacles and hardships, the best solution is to have an online application for a furniture store.

The project purpose

An online furniture store that enables customers to browse the selection of furniture and make purchases there. The project is a list of furniture items that are exhibited in a variety of styles and types. These products can be browsed by the user based on categories. The consumer has the option to add a product to his shopping basket if he likes it. When a person wants to check out, he must first register on the website. Next time, he can log in using the same ID and password. He can now pay with a credit card or cash when the item is delivered. Following a successful transaction, the user receives a copy of the shopping receipt on his email address.

Analysis

With our application, our main focus will be on how to please the client's wishes by not only providing furniture at the lowest possible cost but also with the ease and comfort an application can provide.

We will work on processes that will help customers buy furniture from the application to then be delivered to their homes as soon as possible.

To help customers visualize whether the furniture is suitable, a picture will be shown via the application that will help with visualization. necessary measurements will also be given along with the picture.

For easier interactions between users, an online conversation page for communication will be provided. Along with an optional chat session with a professional designer's input for furniture selection.

After receiving said order, this page will help the customers give their opinions by providing feedback, and will also be able to communicate with other users by giving photographs of the product and comments, which will benefit other customers in knowing the product evaluation upon purchase.

On the chance that a customer wants to return a product, a shipping company will be sent to receive it from the customer to return it to the warehouse.

Similar Applications:

1-Home Box

Pros: Easy to use, variety of options, also adding the locations for pickup stores is very helpful for customers.

Cons: One of the issues with the application is that once you close it the items get deleted from the shopping cart, and the application only provides two languages which are Arabic and English which could be inefficient as anyone should be able to use it.

2- Home Centre

Pros: The detailed description of the items is an efficient point to help users or customers decide on their purchase.

Cons: The 'my list' section could be rearranged better because once creating several lists it looks a bit messy so the sections won't interfere with each other, also every time the user adds an item to the basket they get asked about the delivery location even though it has been already set in the profile.

3- IKEA

Pros: They show you similar items to the items you like, and Their interface is practical and easy to navigate through, also They have suggestions for a whole room design and all the items needed to achieve it.

Cons: It's complicated process to add a new card to the application as a payment method, Managing the profile information could be gathered in one page for easy access, also the application doesn't provide appearance options such as a dark or light system theme which could help improve the user experience.

Resources: app store rating & reviews, personal experience

CS351T – Human Computer Interaction
Second Semester 1444- 2022

جامعة الأميرة
نورة بنت عبدالرحمن
كلية علوم الحاسب والمعلومات

Phase Number: **phase 1 part 2**

Group Number: **Group 2**

Project Title: **Furniture Shopping Application**

Section: **81S**

Date:

Student Name	Student ID	Task Accomplished by student	Mark (by instructor)
1. Monerah Almobarak	442002988	Users + Questionnaire	
2. Nada Alotaibi	442003374	Requirements + Questionnaire	
3. Sarah Aljuhani	442005104	Requirements + Questionnaire	
4. Sarah Altaweel	442000786	Tasks + Interview	
5. Alaa Alshuaibi	442005420	Requirements + Interview	

1

Users:

The primary users of a furniture application are likely to be individuals or households looking to purchase furniture for their homes or offices. These users may include homeowners, renters, and businesses seeking to furnish their spaces. They may use the application to browse and shop for furniture, view product details and images, and place orders for delivery or pickup.

Characteristics of primary users may include an interest in home design and decor, a desire to purchase high-quality furniture, and a willingness to spend time researching and comparing different products. They may also be influenced by factors such as style, price, and availability when making purchasing decisions.

The secondary users of a furniture application could include furniture manufacturers, wholesalers, and retailers who use the application to manage inventory, process orders, and communicate with customers. These users may be interested in tracking sales and customer data and analysing trends in the market to inform their business decisions.

Other potential secondary users of a furniture application could include designers, interior decorators, and other professionals who use the application as a resource for product research and selection. These users may be interested in finding furniture that meets specific design or functional requirements and may use the application to source products from different manufacturers and retailers.

Overall, the primary and secondary users of a furniture application are likely to be diverse and may have a range of characteristics and needs related to furniture. They may use the application for a variety of purposes, including shopping, research, and business management.

Tasks:

1. Measure the space for the furniture.
2. Determine the style of the furniture.
3. choose a color.
4. Determine the budget
5. Go to the online store
6. Search for the furniture
7. Choose a color (if available)
8. Add the item to the basket
9. Click on the basket icon
10. Click on continue to checkout
11. Fill delivery address information
12. Add payment information
13. Click confirm the order to finish the order

Interviews, Field Study or Questionnaire results:

1- Alaa Alshuaibi - interview

Q1. Do you prefer online or in-person stores?

Q2. What features in online shopping are most valuable to you?

Q3. How often do you go to a furniture store? And did you like the experience?

Q4. Do you prefer furniture with neutral colours or colourful?

Q5. In your opinion, how should the furniture be categorised?

Q6. What is your preferred payment method in online shopping?

Q7. Where do you usually go to buy furniture?

Q8. In your opinion, what problems will our application solve?

Q9. What issues did you previously experience while online shopping? If any.

Q10. What other suggestions do you have?

User 1:

A1. Online

A2. The way that stuff is categorise and organised

A3. Once a year, I don't like going there because of the long line, and sometimes lack of staff to help out.

A4. Neutral

A5. Categorised depending on the room (dining, living...)

A6. By credit card

A7. Ikea

A8. Road traffic, and cost of physically going to the store

A9. Items being sold out

A10. Sort the furniture according to lowest prices, best sellers or new arrivals

User 2:

A1. Online

A2. Simple interface, and detailed description of items

A3. Depends on whether I need furnitures that year or not

A4. Neutral

A5. Categorised depending on the type (appliance, surface...)

A6. Cash on delivery

A7. Ikea

A8. Road traffic, reduces time and effort

A9. Lack of credibility, different materials and colours

A10. Add user feedback to furniture

User 3:

A1. Online

A2. The way that items can be sorted by prices

A3. Twice a year for events and occasions, I had a pleasant experience

A4. colourful

A5. According to the room I want to buy for

A6. By instalments

A7. Abyat

A8. Customers can decide with no pressure

A9. I had no issues

A10. Ability to design my own furniture, and talk to professionals

Conclusion:

After the interviews, it is determined that:

1. All users prefer online shopping.

2. Users value a simple and organised interface with the ability to sort

3. Users also rarely go to a furniture store but would most likely go there on holidays or events.

4. User's favourite palette for furniture is neutral.

5. Users differ in categorising the furniture, some want it according to room, while other according to type.

6. The payment method has a different approach for every user, either by credit card, cash on delivery or by instalments.

7. Users' favourite in-person furniture stores are Ikea and Abyat.

8. Users have issues with items being sold out and the quality of the items.

9. Users expect the application to make it easier to buy furniture in terms of time and effort.

10. Users suggested extra services which are the ability to sort, the availability of previous customers' feedback, the ability to design furniture, and talk to professionals.

Using these points taken from the interview, the system should provide a simple and easy-to-understand interface, the system should also provide discounts during holidays, the default view of furniture should have neutral colours, the application should give the user the option for categorising the furniture, different payment methods should be available, the application should give a warning if items are nearly sold out and items should be inspected by professionals for quality.

2-Sarah Altaweel – interview

Q1. How long does it take to deliver your furniture?
Q2. How much do you usually pay to get assembly services?
Q3. How long the return policy usually is?
Q4. Do you usually get a full refund when you receive damaged furniture?
Q5. What was the reason for the choice of furniture that you purchased?
Q6. What is the biggest challenge you face with ordering furniture online?
Q7. How is your experience with customer service when you shop for furniture online?
Q8. Do you have difficulties when returning furniture you bought online?
Q9. What style of furniture is currently in your home?
Q10. What is the main color of the furniture in your home?

User 1:
1. About a week
2. 10% of the total price
3. 7 days from receiving the furniture
4. Yes
5. The price was good
6. Getting the right size
7. Not easy to contact the customer service
8. It takes a long time
9. Modern
10. Light colors

User 2:
1. 10 days
2. 15% per piece
3. A week
4. Yes, I get a full refund
5. It was affordable
6. The furniture looks different when I receive it
7. Long time to respond
8. Not easy to request a return through the website
9. Classic or modern
10. white

User 3:
1. A week
2. 15%
3. 7 days
4. Yes
5. Good price for the quality

6. The color does not match the picture
7. The website only has a number for customer service
8. There is no clear icon for a return
9. modern
10. Bright colors

Conclusion:

1-It takes around a week to deliver furniture you bought online, so with that into consideration the company should not take more than a week to deliver its furniture to have a competitive advantage.

2-When ordering online the assembly service usually costs around 10-15% of the total price, so it is important to consider the total price when deciding the cost of the assembly service.

3- The customer usually gets about a week to return a purchase. So To make customers satisfied with the service they must be given a good amount of time to decide if they want to keep the item or return it.

4- The customer always gets a full refund if he receives damaged furniture. Considering the importance of customers' trust, the customer should expect to be refunded if anything happened to the item while shipping it.

5- Customers prefer to buy inexpensive furniture, so it is important to have a variety of furniture with different levels prices.

6-The biggest challenge the customer faces when ordering furniture online is that the picture does not match the actual furniture when he receives it, taking that into consideration it should be essential to check and make sure the picture has been taken to look as close as possible to the furniture in real life.

7-Customers find it difficult to get customer service online because the website doesn't offer a live chat. Customers prefer to have fast customer service when shopping online and find it hard to keep calling instead of just texting them about the issue.

8-Customers have difficulty when returning furniture because the website is not clear on how to request a return. The website should have a simple interface to make it easier for the user to choose to return an order.

9-Most customers tend to buy modern furniture designs, as it is the majority of their furniture at home.

10-A lot of customers prefer light-colored furniture, so to make it easier for the customer there should be a filter to show furniture based on the color.

3- Sarah Aljuhani -Questionnaire

Questions:

1-Have you ever had furniture online shopping?

2-If you never had furniture online shopping ,please specify the reason

3-What is your price preference for your furniture?

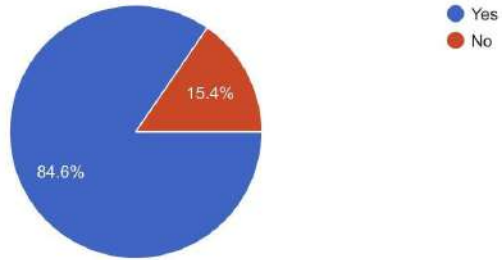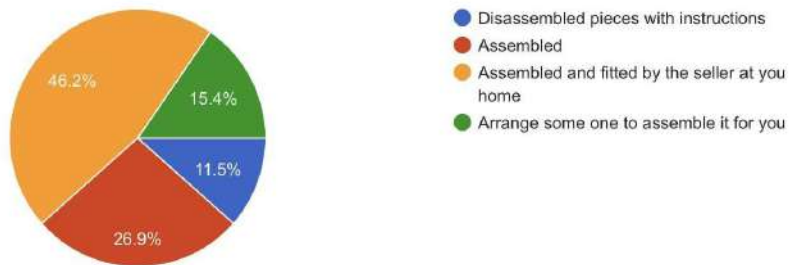4-How do you clarify new furniture matching your decoration and other furniture?

5-Do you like customising all of your furniture to match your decoration?
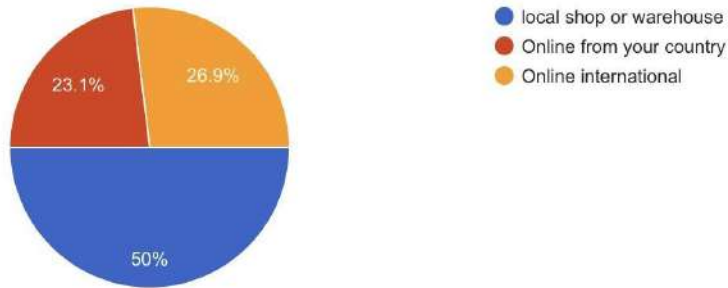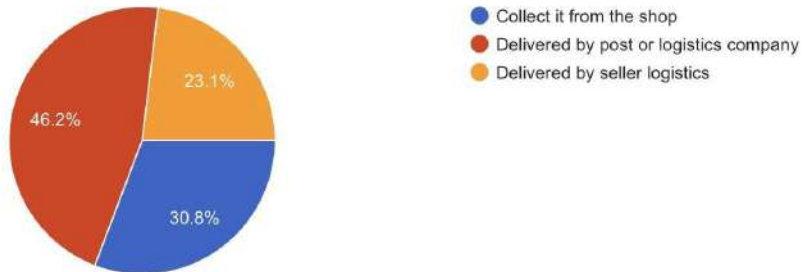
6-How do you prefer receiving your furniture?
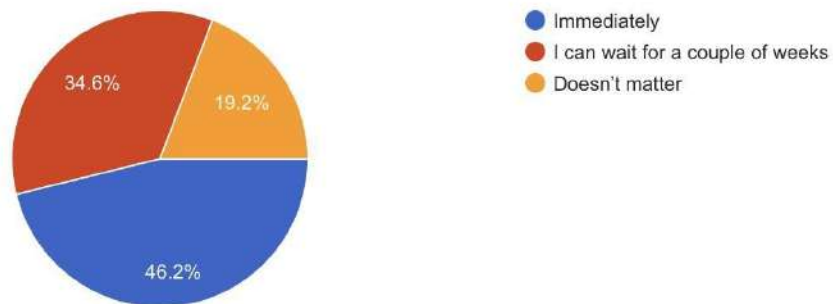
7-What is your preference for buying your furniture from?

8-How do you prefer delivery service?

9-Do you have a preference for the lead time?

10-What is your preference for the furniture weight?

Responses:

نسخ

Have you ever had furniture online shopping?

26 ردًا
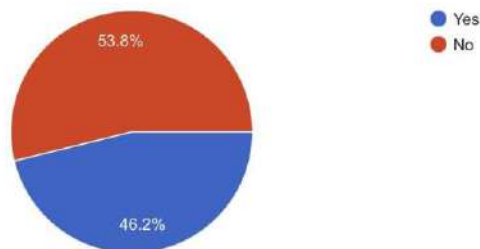
- Yes
- No

53.8%

46.2%

If you never had furniture online shopping ,please specify the reason

26 ردًا

- I don't know about it
- Risk of credit card transactions
- Risk of identity theft
- There is no reason

65.4%

15.4%

15.4%

What is your price preference for your furniture?

26 ردًا

- Affordable
- Cheap
- Expensive

80.8%

15.4%

How do you clarify new furniture matching your decoration and other furniture

26 ردًا

- Imagine or guess
- Chose them together
- Ask interior design

30.8%

19.2%

50%
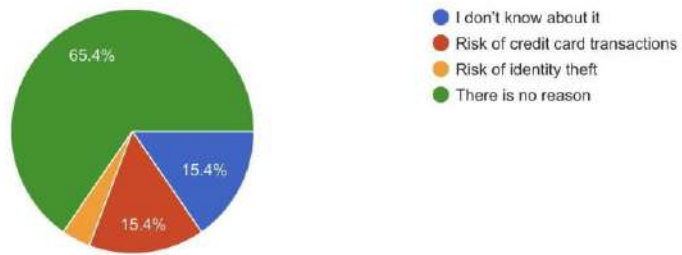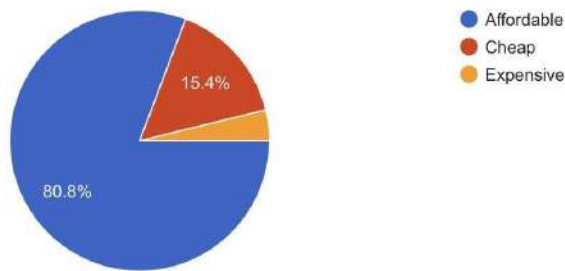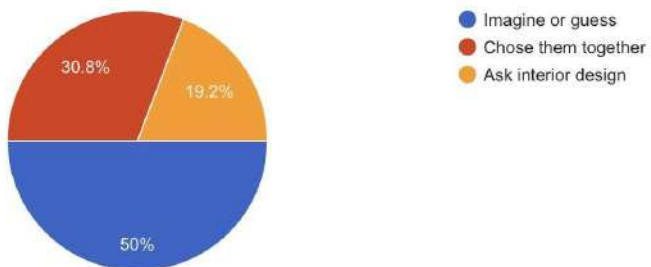
Do you like customizing all of your furniture to match your decoration

26 ردًّا

- Yes
- No

15.4%

84.6%

How do you prefer receiving your furniture?

26 ردًّا

- Disassembled pieces with instructions
- Assembled
- Assembled and fitted by the seller at you home
- Arrange some one to assemble it for you

46.2%

15.4%

11.5%

26.9%

What is your preference for buying your furniture from?

26 ردًا

- local shop or warehouse
- Online from your country
- Online international

23.1%
26.9%
50%

How do you prefer delivery service?

26 ردًا

- Collect it from the shop
- Delivered by post or logistics company
- Delivered by seller logistics

23.1%
46.2%
30.8%

Do you have a preference for the lead time?

26 ردًا

- Immediately
- I can wait for a couple of weeks
- Doesn't matter

34.6%
19.2%
46.2%

What is your preference for the furniture weight?

26 ردًا

- Heavy
- Light
- Doesn't matter

38.5%
23.1%
38.5%
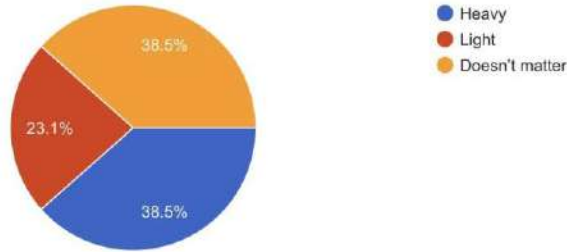
Conclusion:

After the questionnaire,it was determined that :

1- 53.8% had furniture shopping online and 46.2% hadn't .

2-The reason for not shopping for furniture online was that 65.4% had no reason, while 15.4% were at risk of credit card transactions and didn't know about it.

So more than half of the experience is buying furniture via the Internet.

3-80.8% prefer the price to be affordable while 15.4% prefer the cheap price,

So, based on the data, no one prefers the expensive price of furniture.

4-50% of people clarify new furniture matching their decoration based on imagination or guess, while 30.8% choose them together. But there are a few, and there are 19.2% of the people who prefer to ask about interior design.

5-based on the data, 84.6% like customising all of their furniture to match their decoration, which is a high percentage .

6- 46.2% of people prefer receiving their furniture assembled and fitted by the seller at home and 26.9 %only Assembled ,While 15.4% prefer to arrange for someone to assemble it and 11.5 % prefer to disassemble pieces with instructions.

7-50% of people prefer to buy their furniture from a local shop or warehouse and 26.9% and 23.1% prefer international online and online from their country.

8- 46.2% prefer to be delivered by post or logistics company, 30.8% collected from the shop and 23.1% delivered by seller logistics .

9- Based on the data, 46.2% of people immediately have a preference for the lead time and 34.6% can wait for a couple of weeks, while 19.2% don't matter .

10- 38.5% doesn't matter about the furniture weight, but there are 38.5% of people that prefer a heavy furniture weight and 23.1% for a light furniture weight.

4- Nada Alotaibi - Questionnaire

Questions:

1- Do you support the idea of using an application via mobile that will deliver to you furniture?

2- Have you ever felt any problems while making a purchase through other online applications?

3- If yes, what kind of problem?

4- What style of furniture is currently in your home?

5-What is your top concern when buying a new piece of furniture?

6- Do you like your design to be done in phases or all in one go?

7- Have you worked with a designer before?

8- Are you confident that your personal information is being kept confidential when buying a product online?

9- Does online shopping satisfy the Retail Experience?

10-If you never had online shopping, please specify the reason.

Responses:

Do you support the idea of using an application via mobile that will deliver you types of furniture?
44 responses

- yes
- no

100%
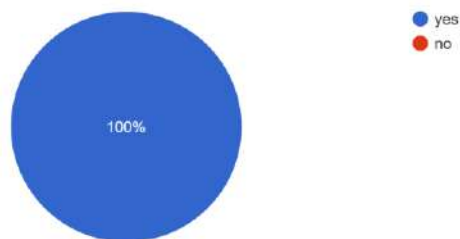
Have you ever felt any problem while making a purchase through other online applications?
44 responses

- yes
- no

22.7%

77.3%
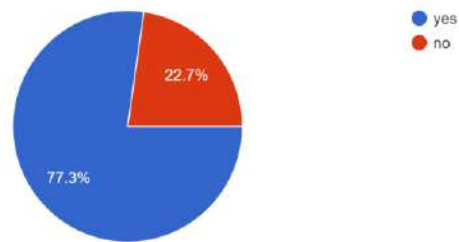
If yes, what kind of problem?
38 responses

- Product damage
- Delay in delivery
- Cheap quality of product

50%

18.4%

31.6%
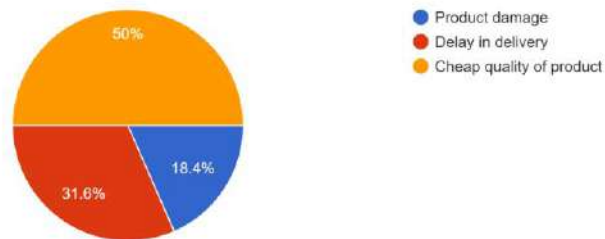
What style of furniture is currently in your home?
44 responses
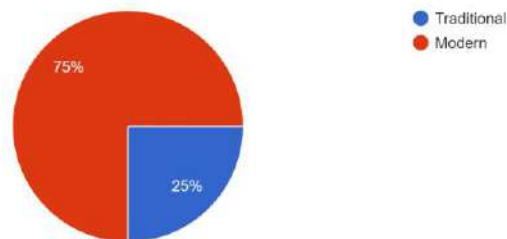
- Traditional
- Modern

75%

25%

What is your top concern when buying a new piece of furniture?
44 responses

- Price
- Style
- Color
- Safety of Design

9.1%

22.7%

36.4%

31.8%
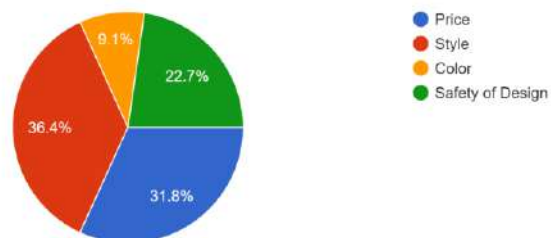
Do you like your design done in phases or all in one go?

44 responses

yes
no

11.4%

88.6%
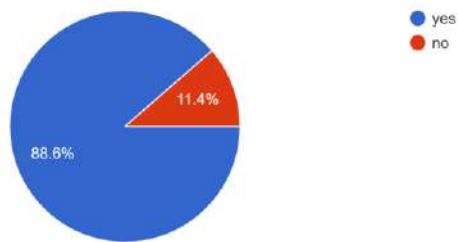
Have you worked with a designer before?

44 responses

yes
no

59.1%

40.9%
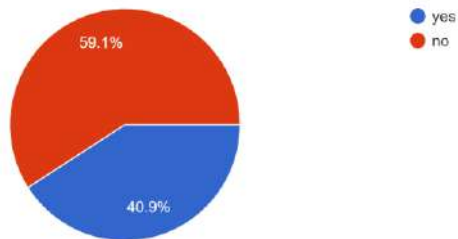
Are you confident that your personal informational being kept confidential when buying product online

44 responses

Agree
Disagree

29.5%

70.5%
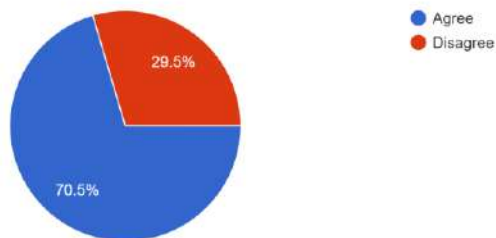
Does online shopping satisfy the Retail Experience?

44 responses

yes
no

29.5%

70.5%
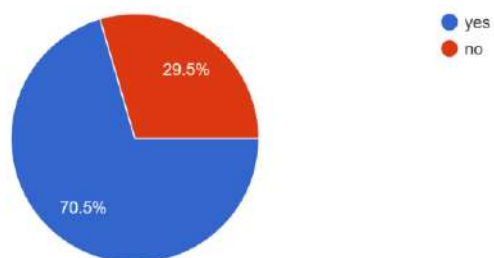
If you never had online shopping, please specify the reason
26 responses

- I don't know about online shopping
- Risk of credit card transactions
- Risk of identity theft

61.5% 15.4% 23.1%
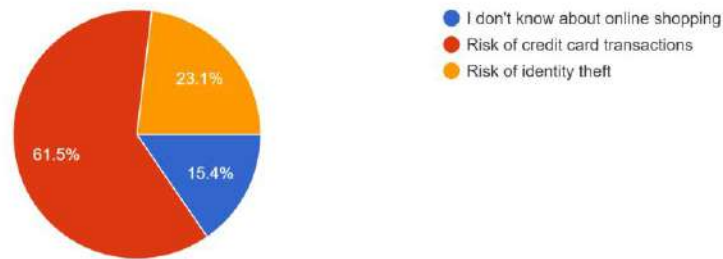
Conclusion:

○After completing the questionnaire, it became apparent that :

1- 100% of people prefer the idea of using applications that deliver furniture to their homes rather than visiting a store

2- Most of the time, after purchasing the products, customers may face some problems like:

Cheap product quality, delay in delivery, product damage.

It became clear that 22.7% of customers experienced these problems.

3- So I decided to limit this percentage to find out the highest problem that customers faced.

It was found that 50% faced the problem of cheap product quality, 31.6% delayed delivery, and 18.4% received damaged products.

4- We wanted to know the types of styles that customers prefer, whether they prefer to buy a modern or traditional type of furniture.

It has become clear to us that most customers own modern furniture in their homes, and they constitute 75%.

Few of the customers own traditional furniture in their homes, and they constitute 25%.

5- After knowing the styles that customers prefer, We want to know what is the customer's most concern when buying a new piece of furniture.

whether it is the Style or the price, Safety of Design, or color.

So it turns out that the most concern is the style which is present in 36.4% of customers, 31.8% of customers are concerned at the price, 22.7% Safety of Design, and 9.1% color

6- Most customers prefer to design furniture in stages, which constitutes 88.6%, rather than all at once, which constitutes 11.4%.

7- A large percentage of customers, 59.1%, prefer working with designers, and this is an excellent thing because it will save a lot of time and effort.

8- Providing security for the customer is very necessary, especially for personal data.

It became clear to us that 70.5% trust their data to be saved through applications when they complete the purchase process.

However, there is a percentage of customers who do not prefer that and they consist of 29.5%.

9- Some customers prefer retailing furniture rather than purchasing a complete set of a particular type of furniture.

The system of purchasing certain parts of furniture is common in some applications.

Therefore 70.5% of customers are satisfied with their online retail experience.

10-Customers sometimes face some concerns, which lead them not to buy from apps such as credit card transaction risk, and identity theft risk.

Most of them, 61.5%, face the risk of credit card transactions, and 23.1% face the risk of identity theft.

And in the percentage of customers who have not previously tried to purchase through applications, and they are 15.4%.

5- Monerah Almobarak - Questionnaire

Question:

Q1 : Does the furniture's ratings help you make your decision ?

Q2: Does having the furniture in a suggested set helps you when buying ?

Q3:How important is it for you to have all the furniture's measurements ?

Q4: Do you like knowing the availability of the furniture pieces in store ?

Q5: Does having an online exclusive sales encourage you to buy online ?

Q6: Do you like having the option to pay in an Instalment ?

Q7: Do you usually expect the furniture to look exactly like the pictures in the application?

Q8: Does the interface of the application have an impact on your decision and experience ?

Q9: Do you usually have concerns about the safety of the furniture upon shipping ?

Q10: Does the review & ratings of the application impact your decision to download and try it ?

Responses:

1- does the furniture's ratings help you make your decision ?
43 responses

- always
- sometimes
- rarely

58.1%

39.5%
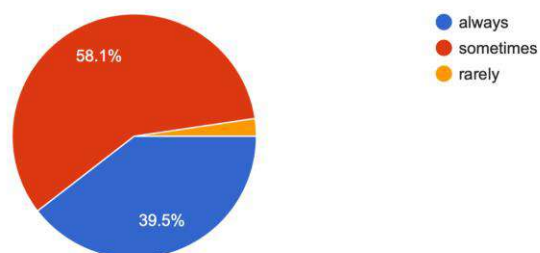
2- does having the furniture in a suggested set helps you when buying ?
43 responses

- yes, always
- Not usually

23.3%

76.7%
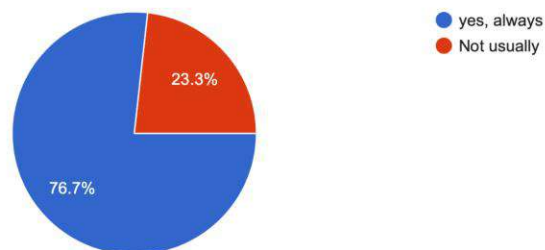
3- how important is it for you to have all the furniture's measurements ?

43 responses

- very important can't buy it if it doesn't have measurements
- Depends on the type of furniture
- Not really important

46.5%

53.5%
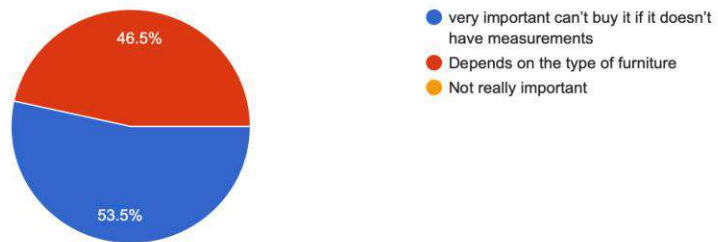
4- Do you like knowing the availability of the furniture pieces in store ?

43 responses

- Yes
- No

14%

86%
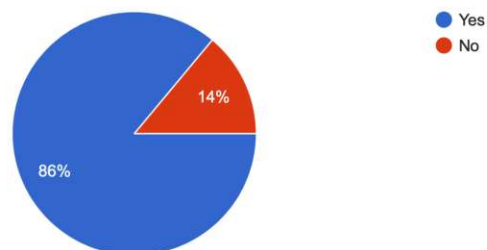
5- Does having an online exclusive sales encourage you to buy online ?

43 responses

- Yes
- Sometimes
- No

51.2%

44.2%
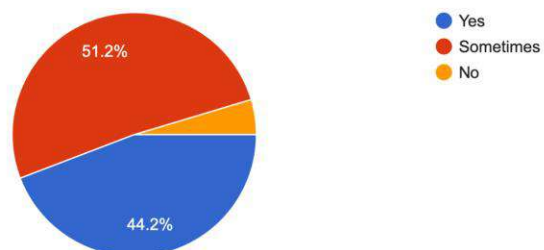
6- Do you like having the option to pay in an Instalment ?

43 responses

- Yes
- Doesn't matter to me

48.8%

51.2%
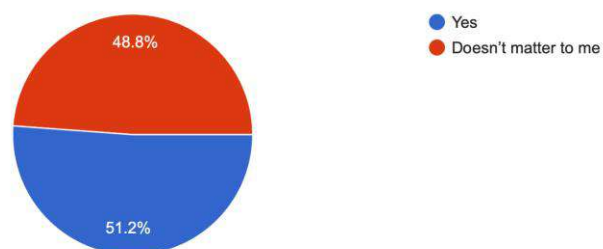
7- Do you usually expect the furniture to look exactly like the pictures in the application?
43 responses

- Of course
- No i expect some minor differences are okay

83.7%
16.3%
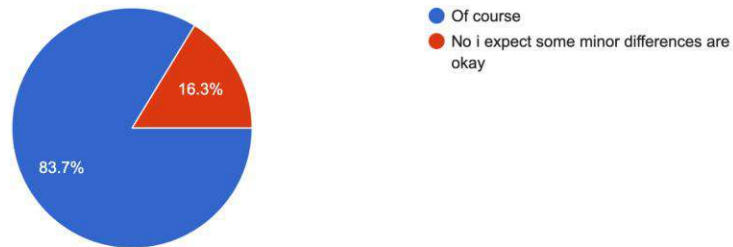
8- Does the interface of the application have an impact on your decision and experience ?
43 responses

- Yes its very impactful
- No because i care about the products not the application

76.7%
23.3%
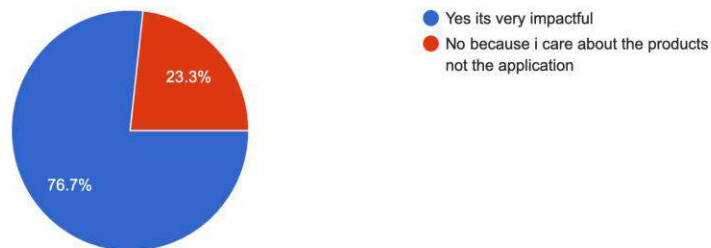
9 - do you usually have concerns about the safety of the furniture upon shipping ?
43 responses

- Yes
- Depends on the type of furniture
- No

62.8%
32.6%
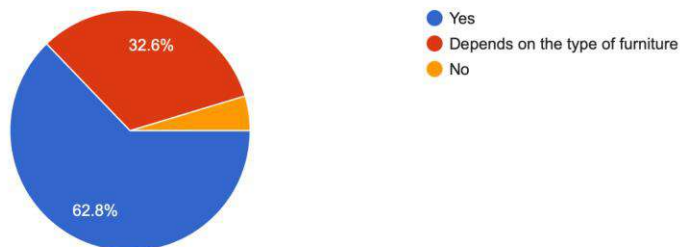
10- Dose the review and ratings of the application impact your decision to download and try it ?
43 responses

- Of course it matters
- No i prefer trying it myself

83.7%
16.3%
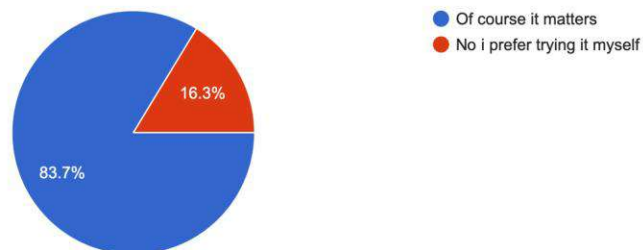
Conclusion:

Based on the data, it appears that:

1- 39.5% of people always find furniture reviews helpful in making their decision, 58.1% find them sometimes helpful, and only 2.3% rarely do.

Overall, furniture reviews are generally helpful to most people while purchasing.

2- It appears that 76.7% of people find it helpful to have furniture presented in a suggested set when making a purchase. while 23.3% say that it does not.

Overall, having furniture presented in a suggested set is generally helpful to most people.

3- Having accurate measurements for furniture is essential to 53.5% of respondents and would not purchase if they are not provided. While the rest 46.5% of respondents said that the importance of measurements depends on the type of furniture.

So we can say that the majority of people, consider them a requirement for making a purchase.

4- It appears that the majority of 86% of people find it important to know the availability of furniture pieces in the store. While Only 14% of people do not find this information important.

Overall, it seems that knowing the availability of furniture in stores is important to most people. or if it has to be either ordered online or purchased from a different location.

5- The results show that having online exclusive sales can be a factor that encourages 44.2% of people to buy online. 51.2% said it would sometimes encourage them, and 4.7% said it would not encourage them.

Overall, online exclusive sales can be a persuasive factor for many people when it comes to purchasing products online.

6- So the majority of people making up 51.2% do like having the option to pay in instalments. However, a significant portion 48.8% do not have a preference either way.

Overall, having the option to pay in instalments may be attractive to some people because it allows them a more manageable financial plan. However, it is also possible that some people may not care either way.

7- it seems that 83.7% of people expect the furniture they purchase to look exactly like the pictures they ordered. while 16.3% are okay with some minor differences.

Overall, it can be concluded that people generally have high expectations for the appearance of the furniture they purchase.

8-it appears that the majority of people find the interface of an application to be impactful on their decision and experience. Specifically, they were 76.7% of the respondents. while the other 23.3% of people said that they do not care about the interface.

Overall, the conclusion is that the interface of an application can be a vital factor for many people when deciding on a purchase and their overall experience.

9- 62.8% of people said they have concerns about the safety of furniture during shipping. while 32.6% said it depends on the type of furniture, and only 4.7% said they do not usually have such concerns.

It seems that shipping safety is a common concern for many people when it comes to purchasing furniture.

10-83.7% of people consider the review and ratings of an application when deciding whether to download it. On the other hand, 16.3% of people prefer to try the application themselves rather than rely on reviews.

Overall, it seems that reviews and ratings have a significant impact on people's decisions to download and try an application.

Requirement:

1. The system should allow the user to register and log in.

2. The system should recommend similar and/or complementary furniture to the selected furniture.

3. The system should give the user 2 options for categorising furniture (room, type)

4. The system should give the user the option to sort furniture (price, best seller, newly added).

5. The system should show previous customers feedback to the selected furniture.

6. The system should give the user the ability to talk to professional interior designers.

7. The system should allow the user options of payment (credit card, cash on delivery, instalments)

8. The user should be able to filter furniture by (style, colour)

9. The seller should be able to add furniture

10. The seller should be able to delete furniture

11. The system shall provide a password recovery facility through customer email or phone number

12. The customer shall be able to track his/her order later on

13. The administrator shall also be able to track any order easily

14. The system should show accurate measurements for furnitures and details of materials

15. The system should prioritise showing available furniture, and state if otherwise

16. The system should have discounts during holidays, while also providing its users exclusive sales

17. The system should have a simple but organised interface, with an appealing appearance

Phase Number: phase 3

Group Number: Group 2

Project Title: Furniture Shopping Application

Section: 81S

Date: 28 jan 2023

Student Name	Student ID	Task Accomplished by student	Mark (by instructor)
1. Monerah Almobarak	442002988	List the top most important and frequent tasks for your system + Prototype	
2. Nada Alotaibi	442003374	Describes interfaces + Prototype	
3. Sarah Aljuhani	442005104	A narrative that describes your design and systematically explains how you arrived at your design + Prototype	
4. Sarah Altaweel	442000786	How you believe your design will be an improvement for users + Prototype	
5. Alaa Alshuaibi	442005420	Interaction Styles + Prototype	

- List the top most important and frequent tasks for your system. (at least 5)

 1- Login and account management: This task allows users to create an account and log into the app. Once logged in, they can access their order tracking, and personal preferences.

2- Order tracking and status updates: This task allows users to track the status of their orders.

3- Rating furniture products: This task allows customers to leave ratings for furniture products they have purchased. This helps other customers make informed decisions about their purchases.

4- Connecting with interior designers for consultation and design services: This task allows customers to connect with interior designers for consultation and design services. This can include virtual consultations, room design, and product recommendations.

5- Payment processing and secure transactions: This task allows customers to securely process payments for their purchases. This includes options for different payment methods, such as credit cards and installment plans and cash .

6- Sorting and filtering options for browsing and searching for furniture products: This task allows customers to easily browse and search for furniture products by sorting and filtering options such as price, style, and brand. This helps customers find the products they're looking for quickly and efficiently.

7- Purchasing furniture: This task allows customers to select and purchase furniture products from the app.

8- Adding to the basket and removing from it: This task allows customers to add selected furniture products to their shopping basket and remove any unwanted items from it before finalizing their purchase.

- A narrative that describes your design and systematically explains how you arrived at your design.

We have used in our design a simple form that helps the user deal with the program with ease. In addition to the harmonious colors that support eye comfort and are at the same time commensurate with the products in the application, in our design we added a box for registration so that the person is not previously registered or he can enter directly if he already has an account. The user can, through the list box, browse all the products and items available. If the user chooses the bedroom option, for example, all the products related to this box will appear to him, and he can choose the filter and sort option to show him the product as he wishes, and the user can view the reviews on the product, the description of the product, and add it to the shopping cart. The user can, through the cart field, browse the products in the cart, and he can delete some products or add a product, and then complete the payment process using the available payment options. In our design, we have used an easy way to track the order or communicate with the designer through the Account field.

- **Interaction styles**

  ● Form fills:

Form fills are an interaction style that allows users to give out information that the application might need. We utilized it in a lot of interfaces, some of which are the login, register, and checkout interfaces. We used form fill interface primarily when the app requires personal information about the user.

  ● Menus:

Menus are a set of options displayed on the screen, we used menus when we wanted to restrict the user into choosing, and the type of menus we used are drop-down menus. For example, when buying an item and filling out the address form, the country category is a menu of the few countries the app supports. Also, when picking an installment plan, the user can only choose from the three options provided by the application.

  ● Point and click:

The most used interface in our app is the point-and-click, which is seen in almost all the interfaces, for instance, furniture, category, list, contact interfaces.

  ● Question/answer:

This interface leads the user via a series of questions. We applied it when the user forgets his/her password the application will guide the user into changing the forgotten password by a series of questions that the user has to answer.

  ● Icons

We used icons primarily with buttons to make it easier for the user to recognize what the button will lead. Such as the login button, cart icon, list icon, and home icon and in choosing payment method, each method has an icon that represents it.

  ● Buttons

We used both kinds of buttons, radio buttons, which is in the sort interface, and checkboxes, which are in the filter interface. We used radio buttons for sorting to show that the user can only sort by one thing. On the other hand, the filter has checkboxes to indicate that the user can filter by many things.

- **How you believe your design will be an improvement for users.**

This design would make it easy for customers to find the perfect piece of furniture for their home, while also providing them with the help they need to set it up. Customers could browse through a wide selection of furniture, from traditional to modern, and with a wide variety of colors and fabrics. Once they've selected, they could easily connect with a professional to get help with any questions they may have about the furniture, such as measurements, materials, and assembly instructions. This makes it easier for customers to make an informed decision and get the best value for their money, the app could also offer assembly services, so customers wouldn't have to worry about doing it themselves. With this app, furniture shopping is easier and more convenient.

Here are screenshots of all the interfaces:

1- Home screen that includes a clickable search bar, 5 categories (Sales, Bedroom, Living room, Kitchen), and a tab bar that provides Home, list, cart, and account.
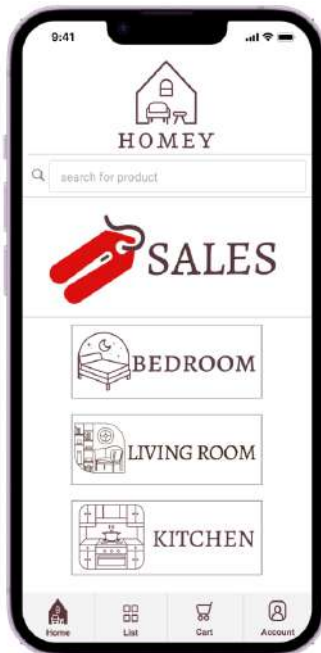
2- Bedroom screen that includes clickable Arrow to return, sort and filter bars, and some bedroom sets that provide bed set pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.
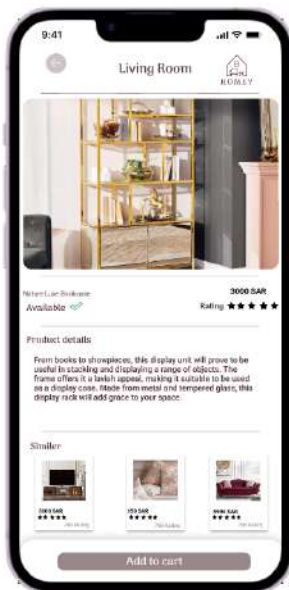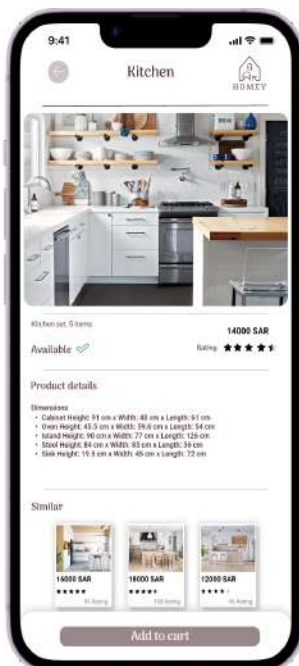
3- Sort screen that includes a clickable Arrow to return, and some options to sort, Cancel and Done buttons, that if the customer has finished sorting he can click the Done button, or if the customer wanted to cancel sort options he will click Cancel button.
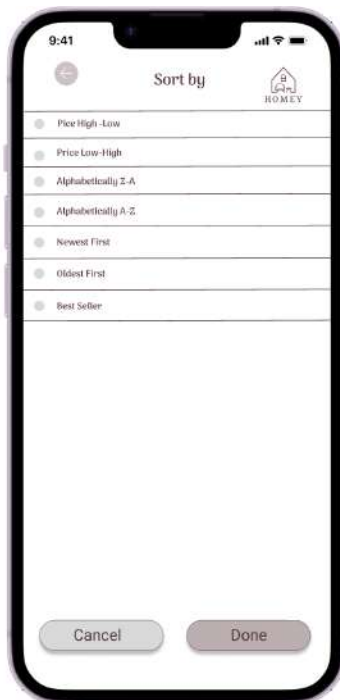
4- Filter screen that includes a clickable Arrow to return, and some filter options (Price range, color, style, types), Cancel and Done buttons, that if the customer has finished filtering he can click the Done button, or if the customer wanted to cancel filter options he will click Cancel button.
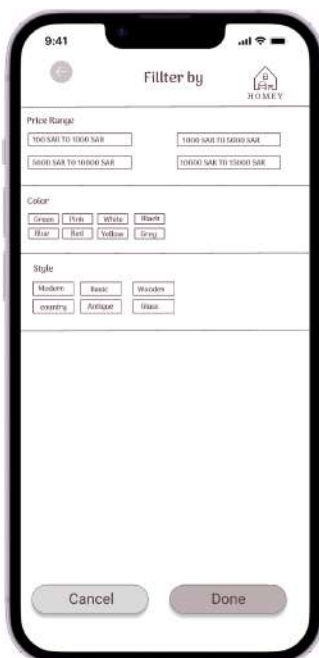
5- First bedroom set screen that includes a clickable Arrow to return, Add to cart button, and some similar bedroom sets options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
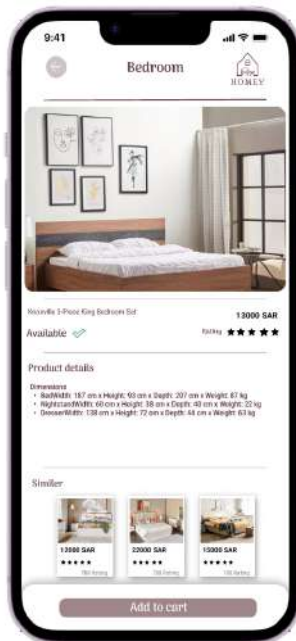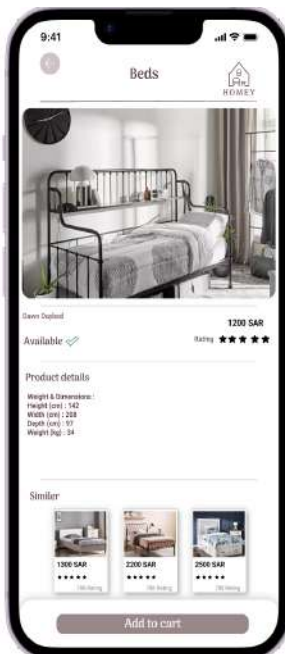

6- Second bedroom set screen that includes a clickable Arrow to return, Add to cart button, and some similar bedroom sets options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
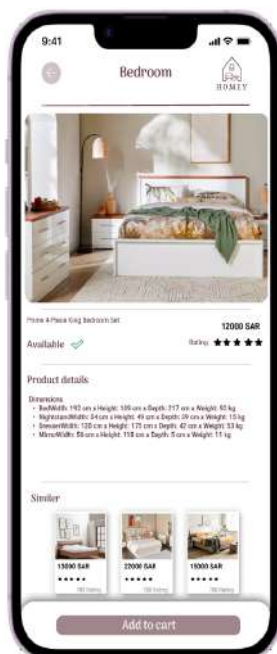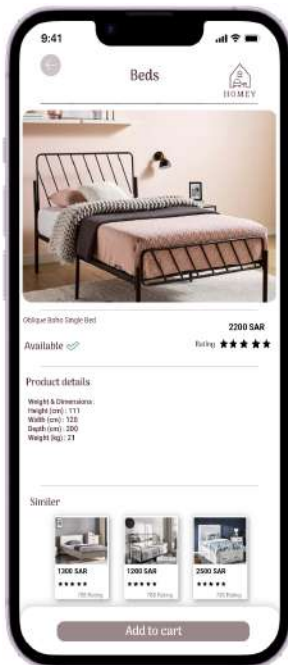
7- Third bedroom set screen that includes a clickable Arrow to return, Add to cart button, and some similar bedroom sets options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
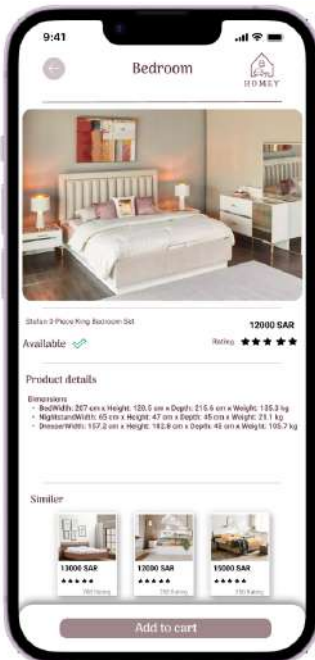
8- Fourth bedroom set screen that includes a clickable Arrow to return, Item not available button and some similar bedroom sets options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
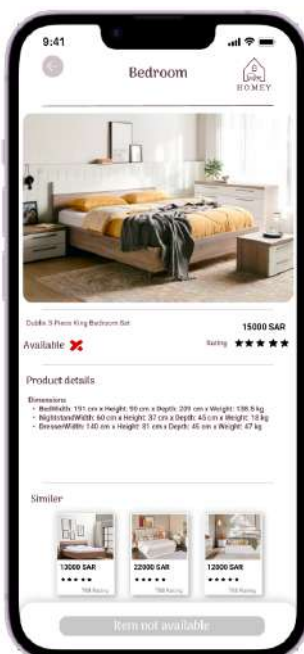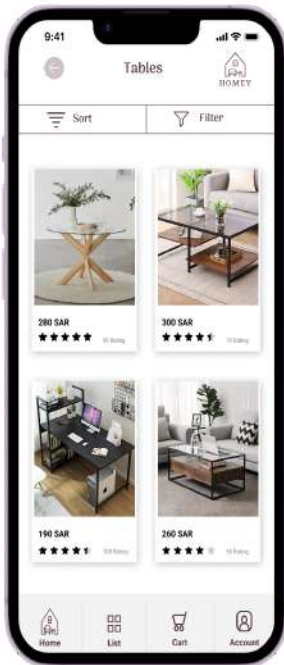
9-Living room screen that includes a clickable Arrow to return, sort and filter bars, and some living room that provides living room pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.
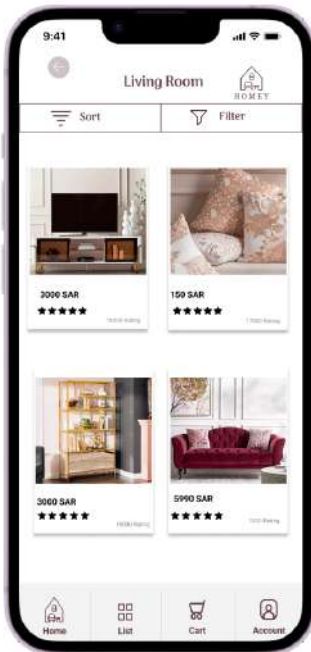
10-First living room screen that includes a clickable Arrow to return, Add to cart button, and some similar living room options. The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
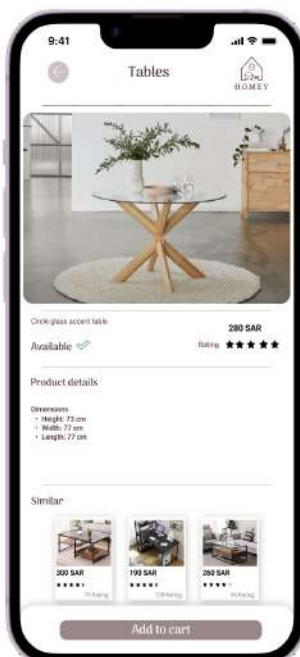
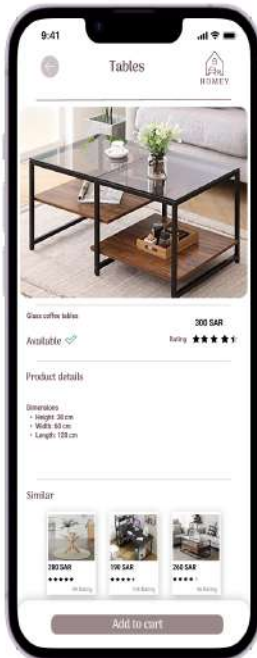11-Second living room screen that includes a clickable Arrow to return, Add to cart button, and some similar living room options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

12-Third living room screen that includes a clickable Arrow to return, Add to cart button, and some similar living room options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

9
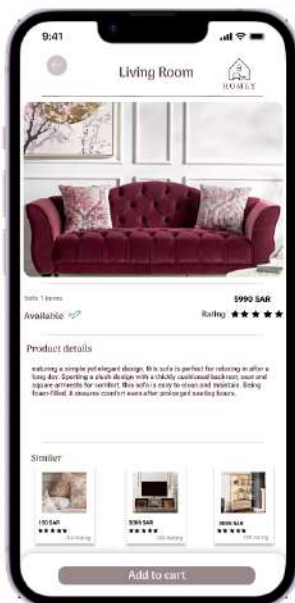
13- Fourth living room screen that includes a clickable Arrow to return, Item not available button and some similar living room options.

The client was provided with some explanatory product options such as product picture, producttype, price, rating star, product availability, and product details.
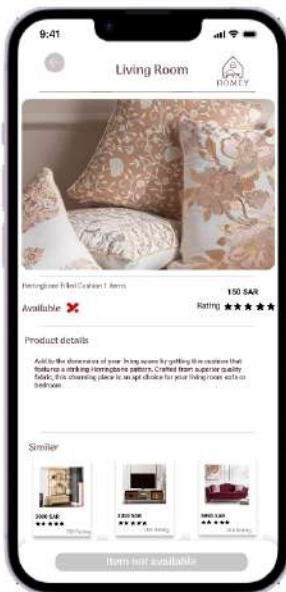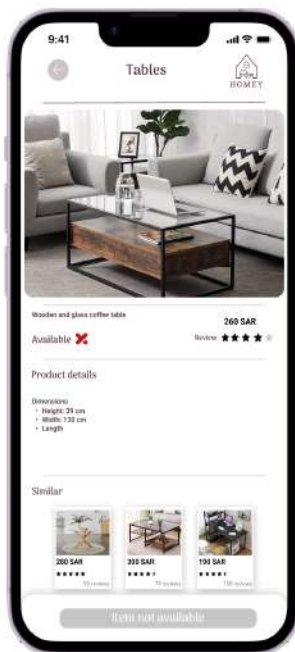

14- Kitchen screen that includes a clickable Arrow to return, sort and filter bars, and some kitchens that provide living room pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.
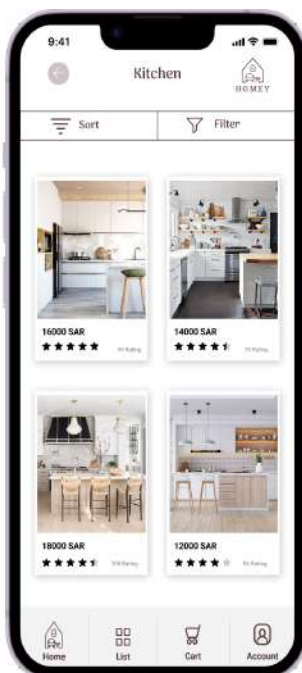
15- First kitchen screen that includes a clickable Arrow to return, Add to cart button, and some similar kitchen options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
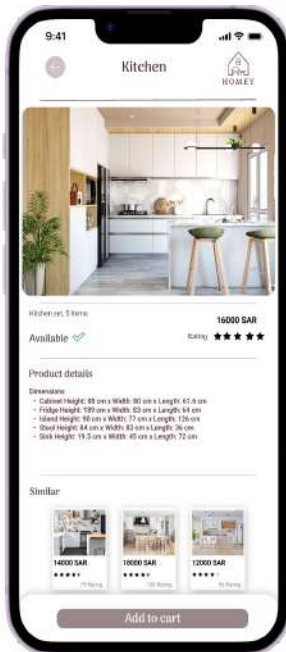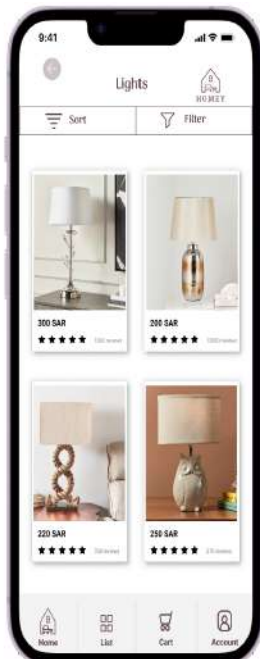

16- Second kitchen screen that includes a clickable Arrow to return, Add to cart button, and some similar kitchen options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
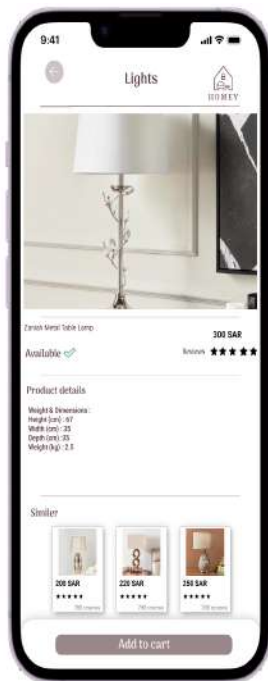

11

17- Third kitchen screen that includes a clickable Arrow to return, Add to cart button, and some similar kitchen options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
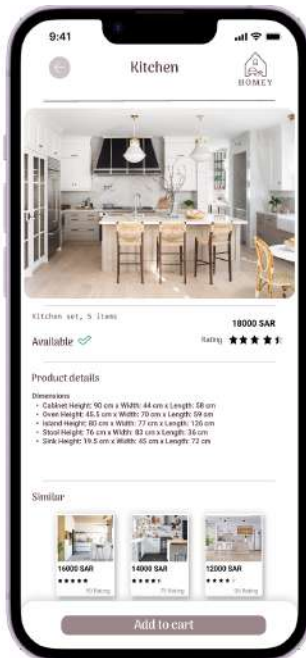
18- Fourth kitchen screen that includes a clickable Arrow to return, Item not available button and some similar kitchen options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
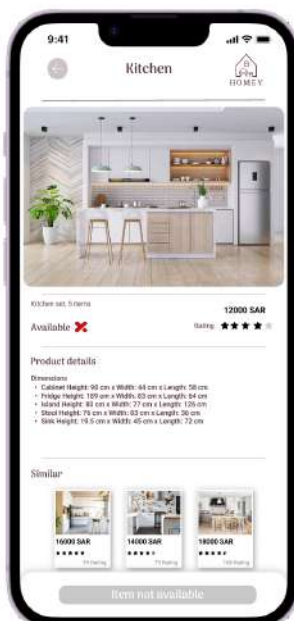
18- List screen that includes a clickable 4 categories (Beds, Tables, Lightings, Couches), and a tab bar that provides Home, list, cart, and account.

19- Beds screen that includes a clickable Arrow to return, sort and filter bars, and some beds that provide living room pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.
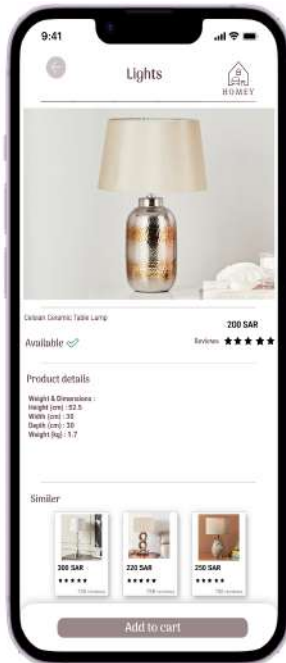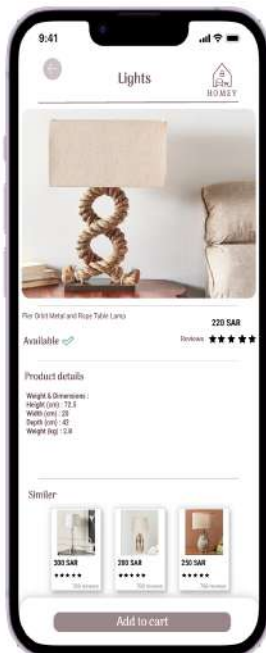
20- First bed screen that includes a clickable Arrow to return, Add to cart button, and some similar bed options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
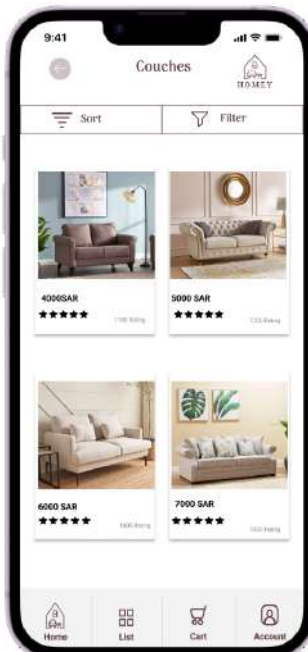

21- Second bed screen that includes a clickable Arrow to return, Add to cart button, and some similar bed options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
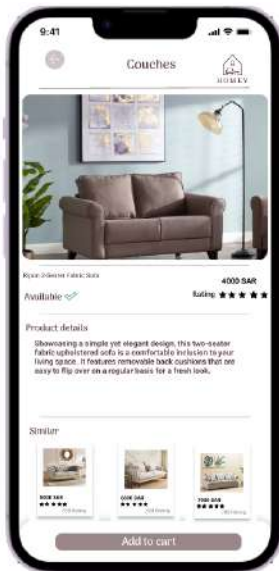

14

22 - Third bed screen that includes a clickable Arrow to return, Add to cart button, and some similar bed options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

23 -Fourth bed screen that includes a clickable Arrow to return, Item not available button and some similar bed options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

24 - Tables screen that includes a clickable Arrow to return, sort and filter bars, and some tables that provides living room pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.
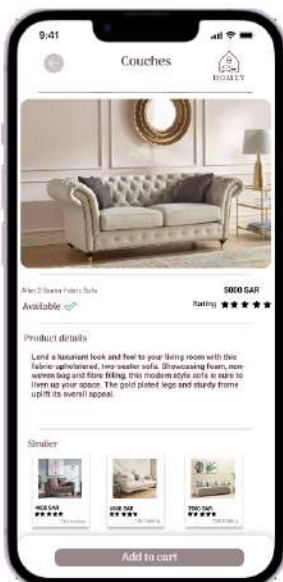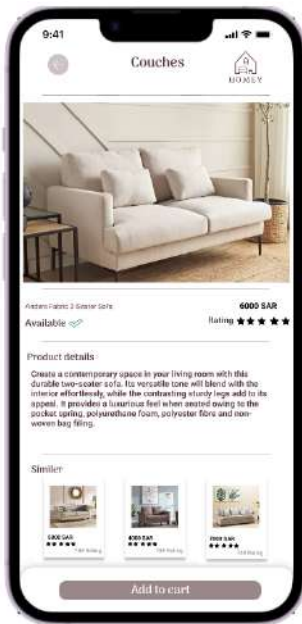

25- First tables screen that includes a clickable Arrow to return, Add to cart button, and some similar tables options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
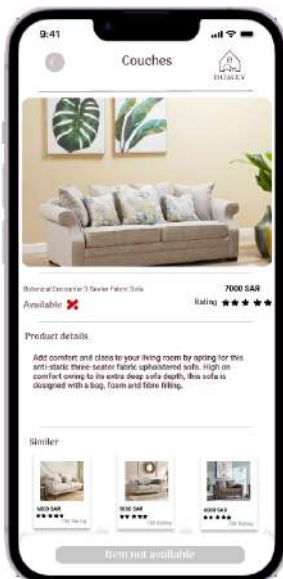
26 - Second tables screen that includes a clickable Arrow to return, Add to cart button, and some similar table options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
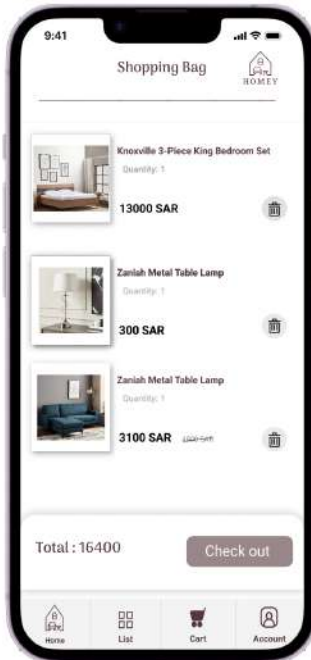

27 - Third tables screen that includes a clickable Arrow to return, Add to cart button, and some similar table options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

28- Fourth tables screen that includes a clickable Arrow to return, Item not available button and some similar table options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.
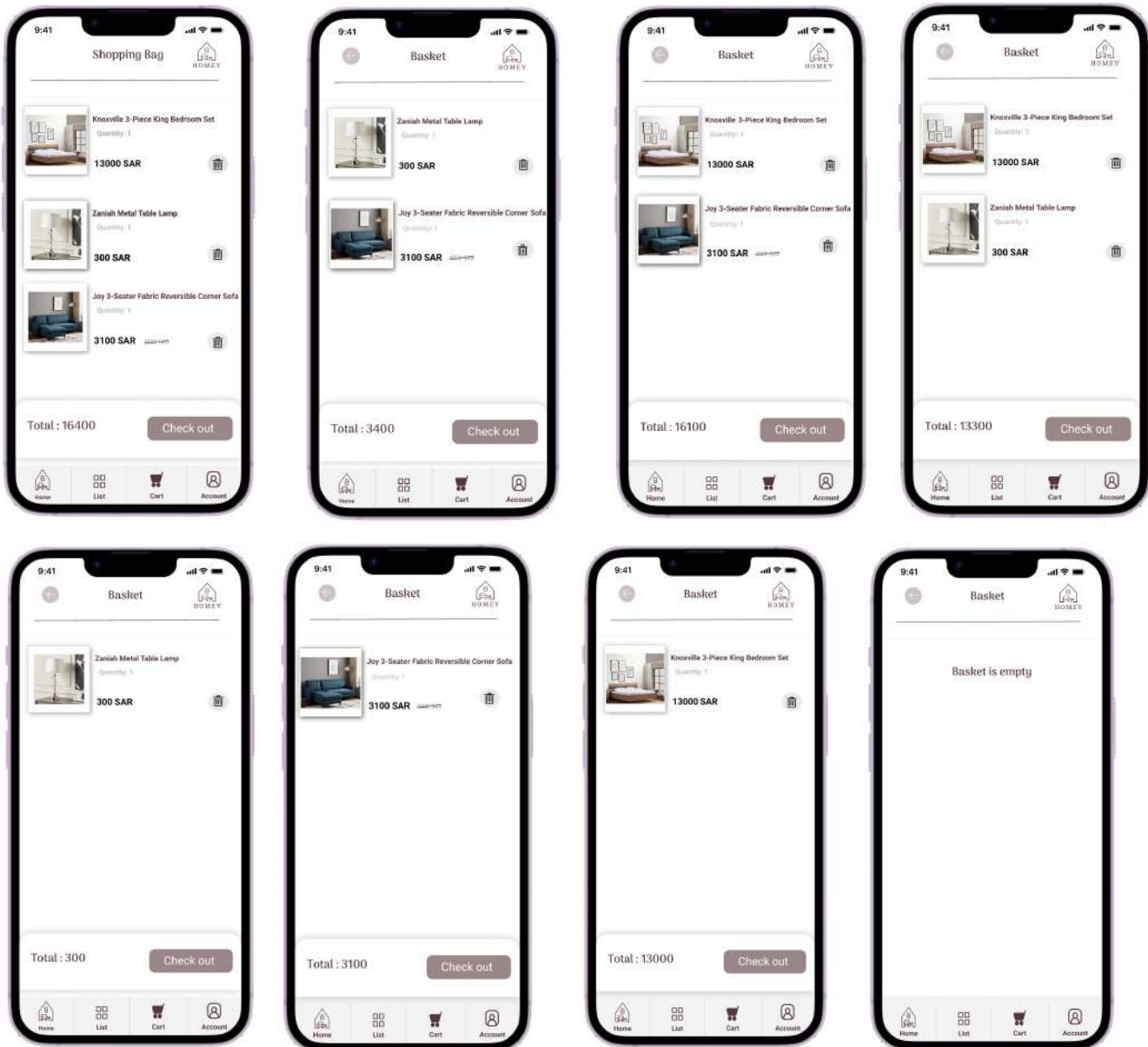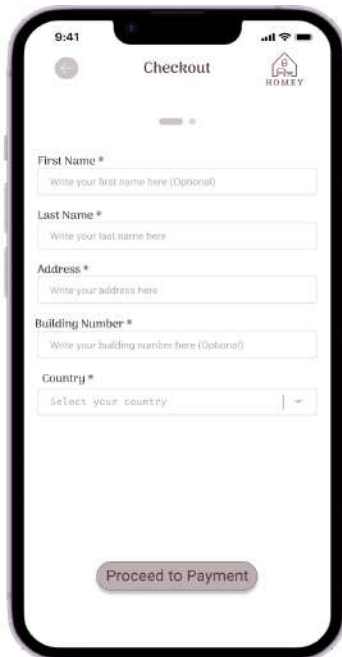

29- Lighting screen that includes a clickable Arrow to return, sort and filter bars, and some Lighting that provides living room pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.

30- First Lighting screen that includes a clickable Arrow to return, Add to cart button, and some similar Lighting options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

31- Second Lighting screen that includes a clickable Arrow to return, Add to cart button, and some similar Lighting options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

32- Third Lighting screen that includes a clickable Arrow to return, Add to cart button, and some similar Lighting options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

33- Fourth Lighting screen that includes a clickable Arrow to return, Item not available button and some similar Lighting options.

The client was provided with some explanatory product options such as product picture, product type, price, rating star, product availability, and product details.

34- Couches screen that includes a clickable Arrow to return, sort and filter bars, and some Couches that provides living room pictures, price, rate stars, and a tab bar that provides Home, list, cart, and account.

35- First Couches screen that includes a clickable Arrow to return, Add to cart button, and some similar Couches options.

The client was provided with some explanatory product options such as product picture,

producttype, price, rating star, product availability, and product details.

36- Second Couches screen that includes a clickable Arrow to return, Add to cart button, and some similar Couches options.

The client was provided with some explanatory product options such as product picture, producttype, price, rating star, product availability, and product details.

37- Third Couches screen that includes a clickable Arrow to return, Add to cart button, and some similar Couches options. The client was provided with some explanatory product options such as product picture, producttype, price, rating star, product availability, and product details.

38- Fourth Couches screen that includes a clickable Arrow to return, Item not available button and some similar Couches options.

The client was provided with some explanatory product options such as product picture, producttype, price, rating star, product availability, and product details.

39- Shopping bag screen that includes clickable trash, check out button, and a tab bar that provides Home, list, cart, and account.

The client was provided with some explanatory product options such as product picture, product type, price, and total price.

40- When a customer deleted a product

41- Checkout screen that includes a clickable Arrow to return, some needed customer information, and proceed to the payment button.

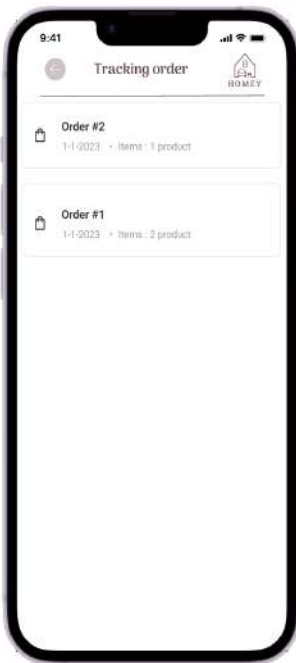42- payment screen that includes a clickable Arrow to return, 3 kinds of payment methods, and a place order button.

43- Credit card method screen that includes a clickable Arrow to return, important customer credit information, and a place order button.

44- Cash delivery method screen that includes a clickable Arrow to return, and a place order button.

45- Installment method screen that includes a clickable Arrow to return, important customer

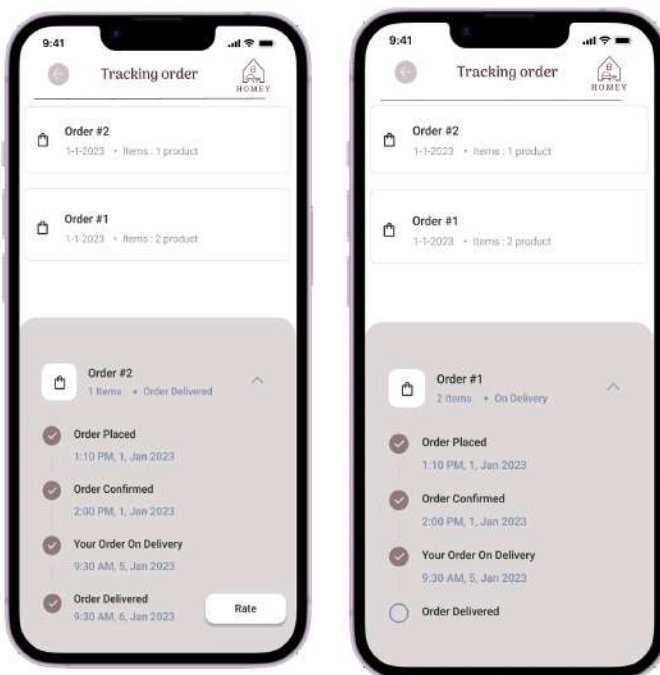Installment information, and a place order button.
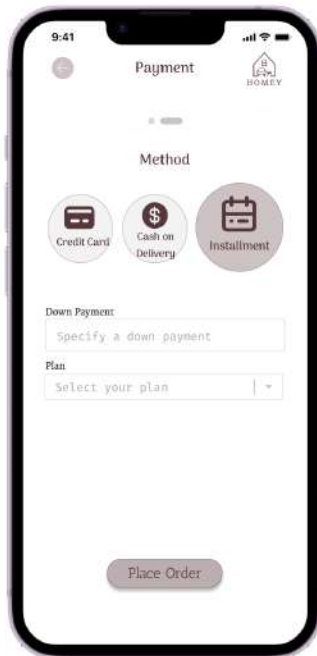
46- Order submitting screen that includes a clickable return home button, and track order.
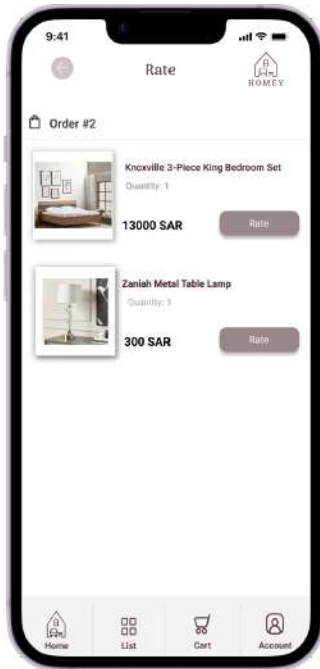
47- Tracking order screen that includes a clickable Arrow to return, and a list of orders.
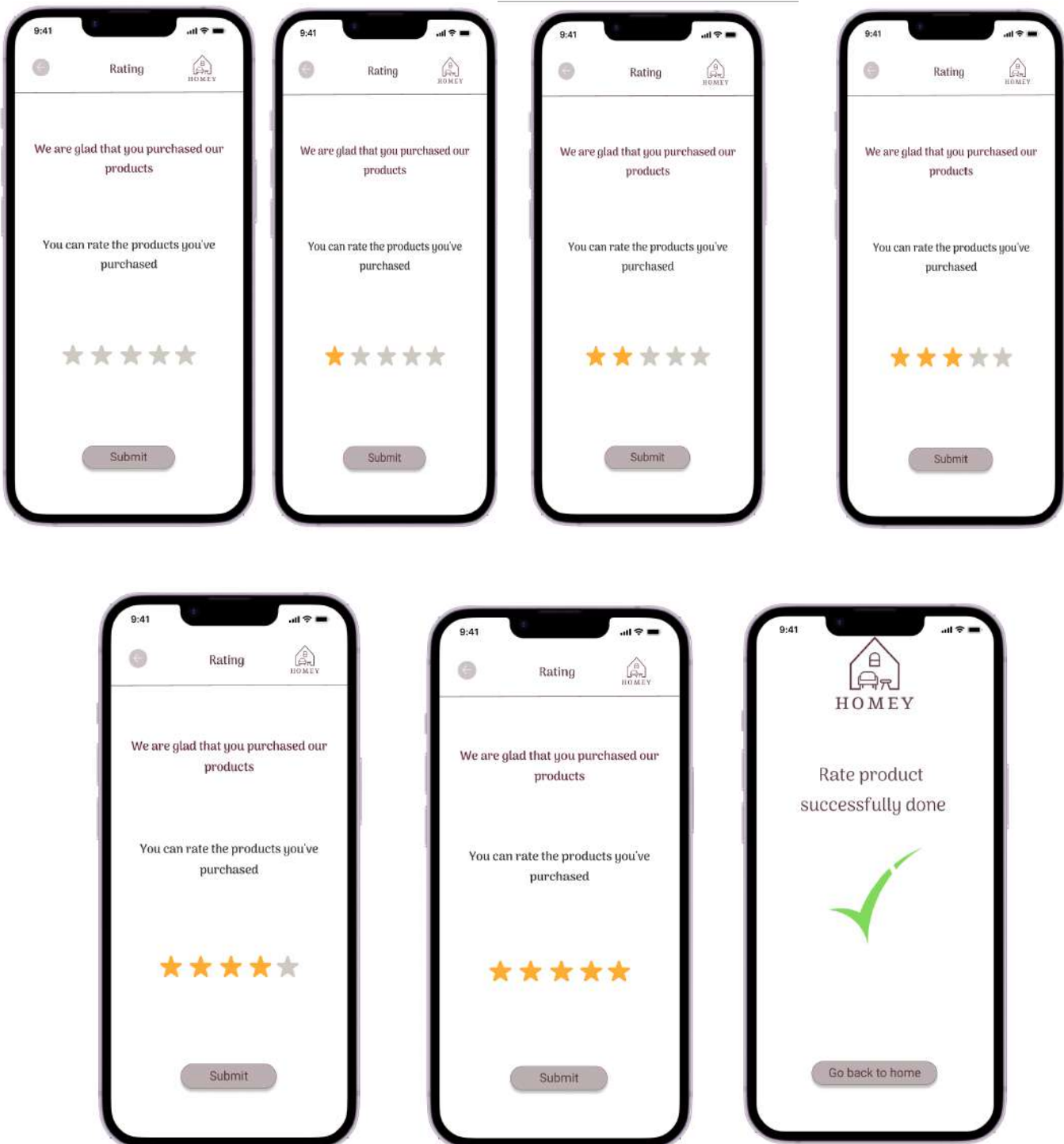

48- Choosing orders to track, the orders that have been delivered the customer can clicke at the
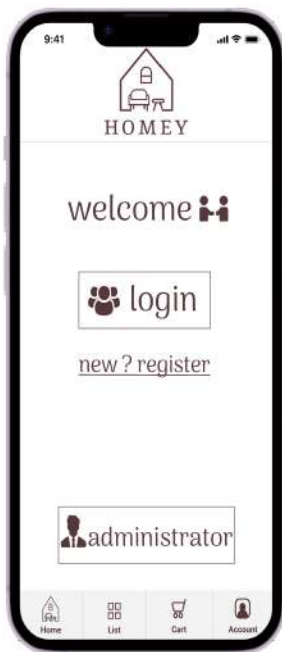
Rate button.

49- Rate screen that includes a clickable Arrow to return, the order number with all information needed, and a rate button.
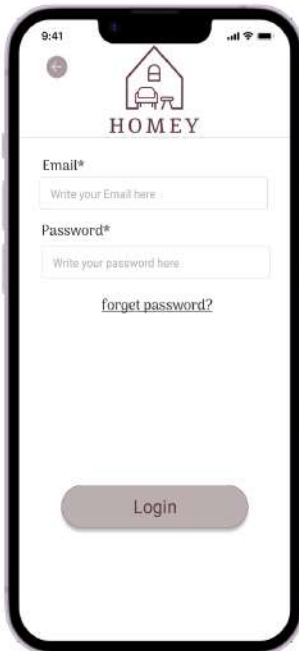
50- Rating screen that includes clickable 5 stars rate, submit button, and Go back to home button.

51- Account screen that includes clickable log-in, register, and administrator buttons

52- Login screen screen

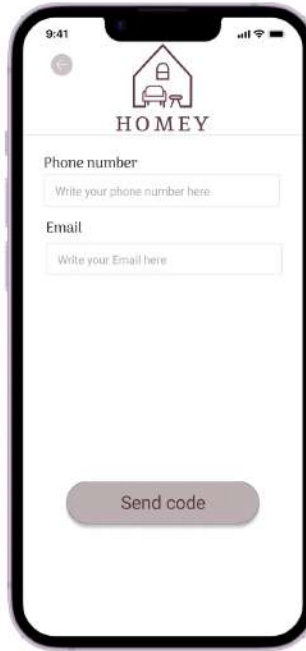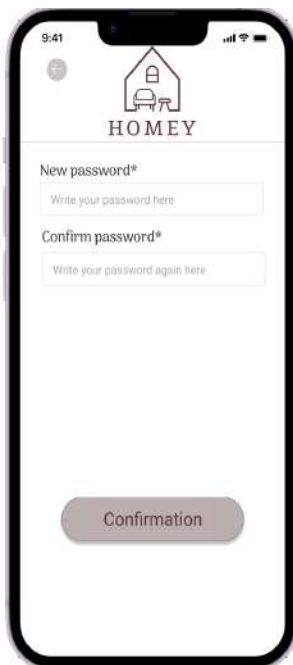## 53- Contact designers screen
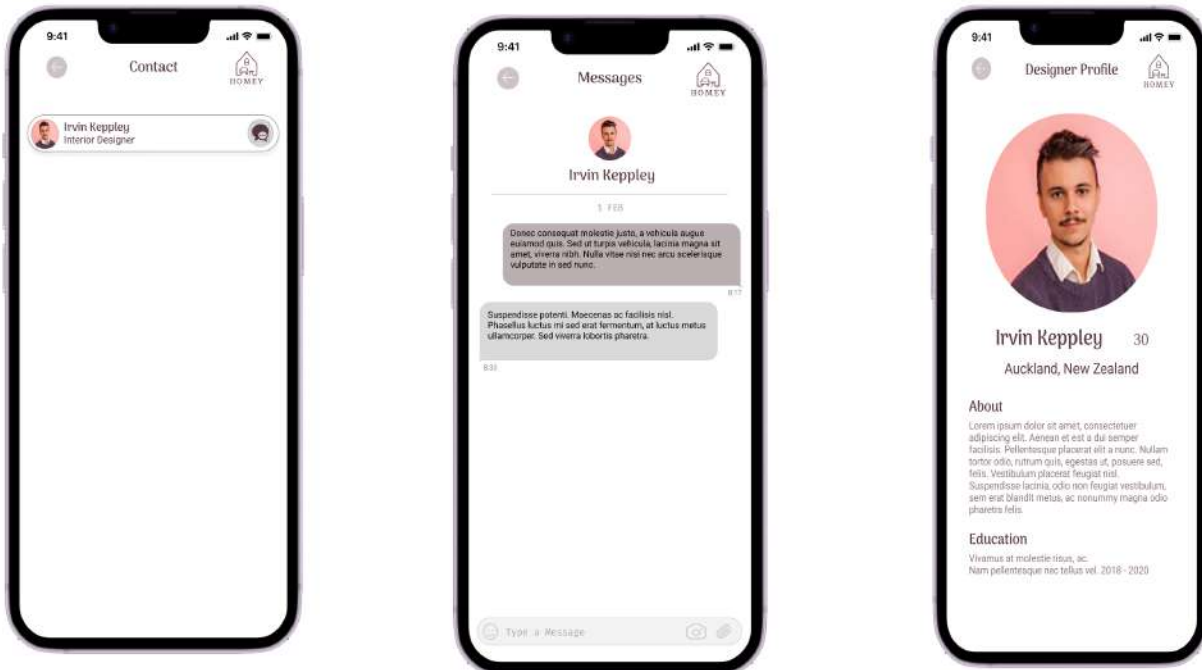
54- New register screen

55- Sales screen
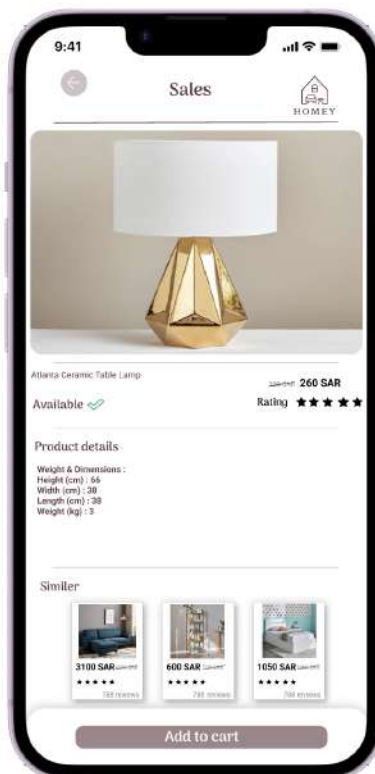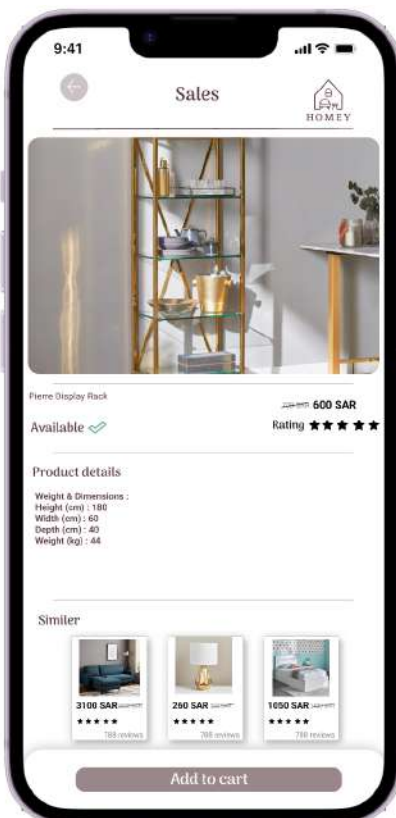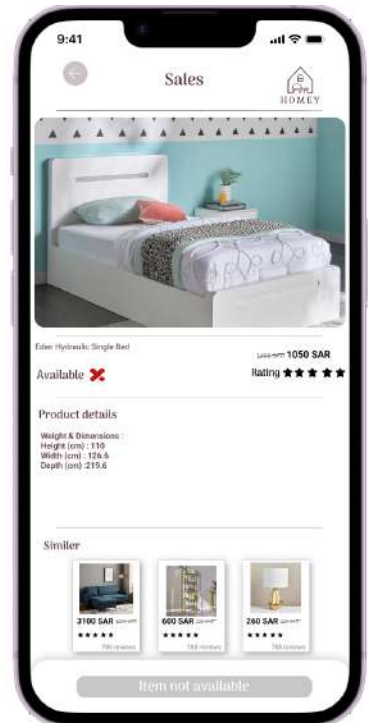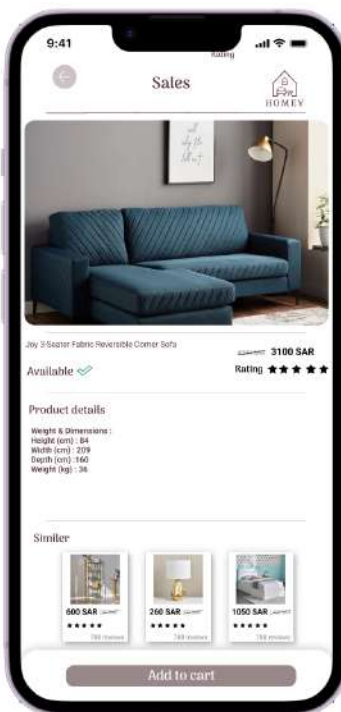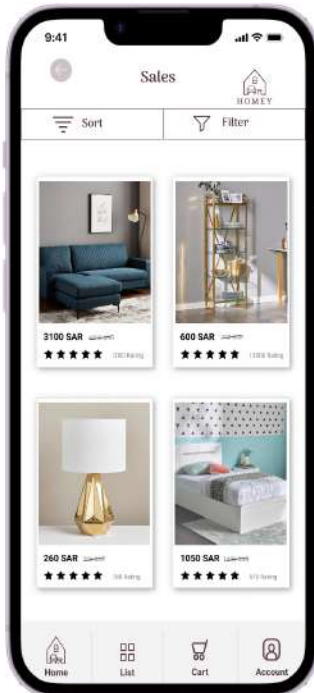
56- Administrator screen
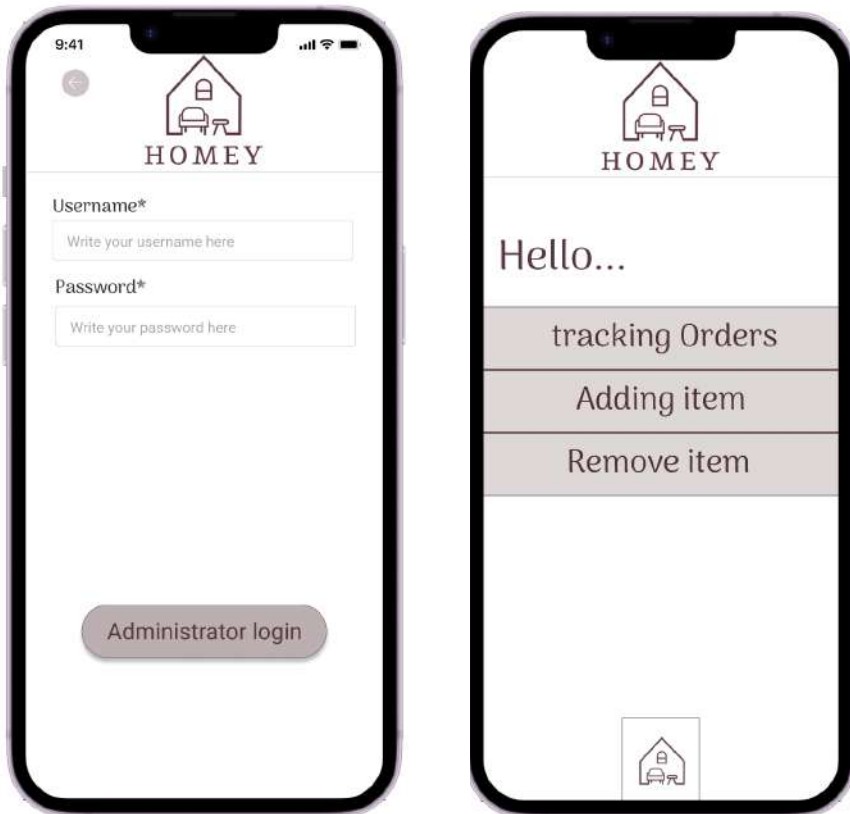
57- Administrator tracking orders and delete screen and confirm and adding item and remove item

Item added successfully

Back to home

All items

Choose item to remove

16000 SAR	14000 SAR
18000 SAR	12000 SAR
300 SAR	200 SAR
220 SAR	250 SAR

All items

Choose item to remove

13000 SAR	12000 SAR
22000 SAR	25000 SAR
1300 SAR	1200 SAR
2200 SAR	2500 SAR

All items

Choose item to remove

280 SAR	300 SAR
190 SAR	260 SAR
4000SAR	5000 SAR
6000 SAR	7000 SAR

HOMEY

Item removed successfully

back to profile

The link :

[Prototype – Figma](#)

[Prototype – Figma](#)

All interfaces no Describes (export from figma): next page

Lab Project – Phase 4

Student Name	Student ID	Task Accomplished by student	Mark (by instructor)
1. Monerah Almobarak	442002988	Usability Testing + analysis	
2. Nada Alotaibi	442003374	Usability Testing + analysis	
3. Sarah Aljuhani	442005104	Usability Testing + analysis	
4. Sarah Altaweel	442000786	Usability Testing + analysis	
5. Alaa Alshuaibi	442005420	Usability Testing + analysis	

monerah almobarak

Task Name	Task Time	Number of Errors	Comments	Suggestion to improve Task Design
1-register as a new account	38.72 seconds	0	easy and clear	-
2- login into the account	17.42 seconds	0	easy and clear	-
3- forget password of the account	34.95 seconds	0	The user has done the task smoothly	-
4- contact with a designer and view his account	24.54 seconds	1	User didn't understand where to click to view the designer account	the button of the designer account should be more visible
5- View the beds and use filters or sort	124.02 seconds	1	took too long to find the beds list	List button needs to be clearer or add the list category to home page
6- add furniture to the cart	17.65 seconds	0	done immediately	-
7- view the cart and delete unwanted products	16.62 seconds	0	done immediately	-
8- check out and choose payment	32.44 seconds	0	clear but need more easier options	add apple pay
9- track order	13.25 seconds	0	User easily tracked the order	-
10- Rate product	51.23 seconds	0	easy but would be more efficient if it has direct access	add direct button

Sarah Aljuhani

Task Name	Task Time	Number of Errors	Comments	Suggestion to improve Task Design
1-register as a new account	38.06 sec	0	Good and easy but add more language choice	Add option to convert to Arabic or other language
2- login into the account	10.8 sec	0	Good and fast, but add more language choice	Add option to convert to Arabic or other language
3- forget password of the account	22.4 sec	0	Clear and fast to change password	none
4- contact with a designer and view his account	30.9 sec	1	The user didn't understand where to press to contact with designer	Make the button more visible in home screen
5- View the beds and use filters or sort	15.06 sec	0	Good and fast to do this task	Add more choice in filter
6- add furniture to the cart	20.3 sec	0	Easy and clear	none
7- view the cart and delete unwanted products	9.7sec	0	Good and easy to view the cart	No change
8- check out and choose payment	10.02 sec	0	Good but add more choice to pay	Adding STC pay
9- track order	30.4 sec	1	Took to long to find track order button	track order button should be clear
10- Rate product	3.8 sec	0	Clear	No change

Nada Alotaibi

Task Name	Task Time	Number of Errors	Comments	Suggestion to improve Task Design
1-register as a new account	27.96 s	0	Creating a new account was easy for the user	none
2- login into the account	10.7 s	0	Logging into the account was easy for the user	none
3- forget password of the account	31.01s	0	It was done successfully	Providing the option of changing passwords in user accounts
4- contact with a designer and view his account	29.32s	1	The user got lost when they tried to find out how to connect with a professional designer	Add a designer icon to the tab bar to make it easier for users to connect to the designer
5- View the beds and use filters or sort	20.5s	1	Finding the bed section was difficult for the user	Make the bed's section more visible for the user by placing it on the front page rather than in the list tab bar
6- add furniture to the cart	33.5s	0	The user could easily add furniture to the card	none
7- view the cart and delete unwanted products	14.3s	0	It was easy for the user to delete some furniture from the cart	none
8- check out and choose payment	10s	0	Checking out and selecting cash on delivery were easy for the user	none
9- track order	7.55	0	It was easy for the user to track their orders	none
10- Rate product	13.69	0	User was able to rate their orders easily	none

Alaa Alshuaibi

Task Name	Task Time	Number of Errors	Comments	Suggestion to improve Task Design
1-register as a new account	32.57 s	0	-	-
2- login into the account	23.03 s	0	-	-
3- forget password of the account	34.01 s	0	-	-
4- contact with a designer and view his account	34.31 s	1	user couldn't find the way to contact the designer. then couldn't find his details	should have the contact as an option outside of the account tab
5- View the beds and use filters or sort	19.50 s	1	user pressed the word of sort instead of the circle	the whole sentence should be pressable
6- add furniture to the cart	9.11 s	0	-	-
7- view the cart and delete unwanted products	8.44 s	0	-	-
8- check out and choose payment	26.32 s	0	-	-
9- track order	15.26 s	1	user took long time to find track order	should be easier to locate the track orders button
10- Rate product	20.50 s	0	-	-

Sarah Altaweel

Task Name	Task Time	Number of Errors	Comments	Suggestion to improve Task Design
1-register as a new account	36.48 seconds	0	Had no trouble doing this task for the first time	No suggestions
2- login into the account	15.3 seconds	0	The user did the task easily	No suggestions
3- forget password of the account	36.51 seconds	0	Had no trouble doing this task for the first time	No suggestions
4- contact with a designer and view his account	58.5 seconds	1	The user took too long to find a way to contact the designer	Make it more visible to the user to find it easier by changing its place
5- View the beds and use filters or sort	55.46 seconds	1	Clicked on the bedroom category instead of the beds' filter	Put all the categories and filters on one interface so the user can differentiate between the bedroom section and the beds section
6- add furniture to the cart	15.36 seconds	0	Very easy for the user	Make it possible for the user to select the quantity of the furniture from the cart instead of having to go back and add the furniture multiple times
7- view the cart and delete unwanted products	15.14 seconds	0	Very clear	No suggestions
8- check out and choose payment	59.3 seconds	0	It is a clear task for the user	Include more payment types
9- track order	11.25 seconds	0	The task was done successfully	No suggestions
10- Rate product	21.55 seconds	0	The user did not seem to have any trouble doing the task	No suggestions

Analysis:

According to the results, most of the users used the application for the first time with total errors less than 3; which means the application has high learnability and effectiveness,

The main issues in the usability of the system are:

1. 'contact with the designer and view his account'

   most users couldn't reach the designer contact or his account. Therefore, this section needs to be more visible, like adding it to the tab bar, or in the home page, so it would be more visible to the user.

2. 'View the beds and use filters or sort'

   Some of the users were confused between the "bedroom" page and "beds" page, and when they used sort they checked the word instead of the radio button. Therefore, we should clarify the difference between the two categories (room, and type) by adding the type section "beds" in the home screen, and for solving the sort problem we should make the word clickable.

3. 'track order'

   some of the users couldn't reach the 'track order' page as it was not visible, we should make a help button in the home page that will help the user to understand the application more by adding Frequently Asked Questions including steps to track order.

In conclusion, We tested our system by useability test on 5 participants and we noticed each participant had performed at least 70% of the system tasks successfully and without any problems, demonstrating the system's high degree of usability and learnability but need some improvements on tasks that gave errors.